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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/004,466	11/01/2001	Marion Hellinger	P01,0376	6767

26574 7590 08/11/2004

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EXAMINER

QADERI, RUNA S

ART UNIT PAPER NUMBER

3737

DATE MAILED: 08/11/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

fw

Office Action Summary	Application No.	Applicant(s)	
	10/004,466	HELLINGER, MARION	
	Examiner	Art Unit	
	Runa S. Qaderi	3737	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1) ☐ Responsive to communication(s) filed on ____.

2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.

3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4) ☒ Claim(s) 1-12 is/are pending in the application.

4a) Of the above claim(s) ____ is/are withdrawn from consideration.

5) ☐ Claim(s) ____ is/are allowed.

6) ☒ Claim(s) 1-12 is/are rejected.

7) ☐ Claim(s) ____ is/are objected to.

8) ☐ Claim(s) ____ are subject to restriction and/or election requirement.

Application Papers

9) ☐ The specification is objected to by the Examiner.

10) ☐ The drawing(s) filed on ____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
 Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
 Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a) ☒ All b) ☐ Some * c) ☐ None of:

1. ☒ Certified copies of the priority documents have been received.

2. ☐ Certified copies of the priority documents have been received in Application No. ____.

3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)	4) <input type="checkbox"/> Interview Summary (PTO-413) Paper No(s)/Mail Date. ____.
2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)	5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)
3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date <u>03/04/02</u> .	6) <input type="checkbox"/> Other: ____.

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DETAILED ACTION***Claim Rejections - 35 USC § 102***

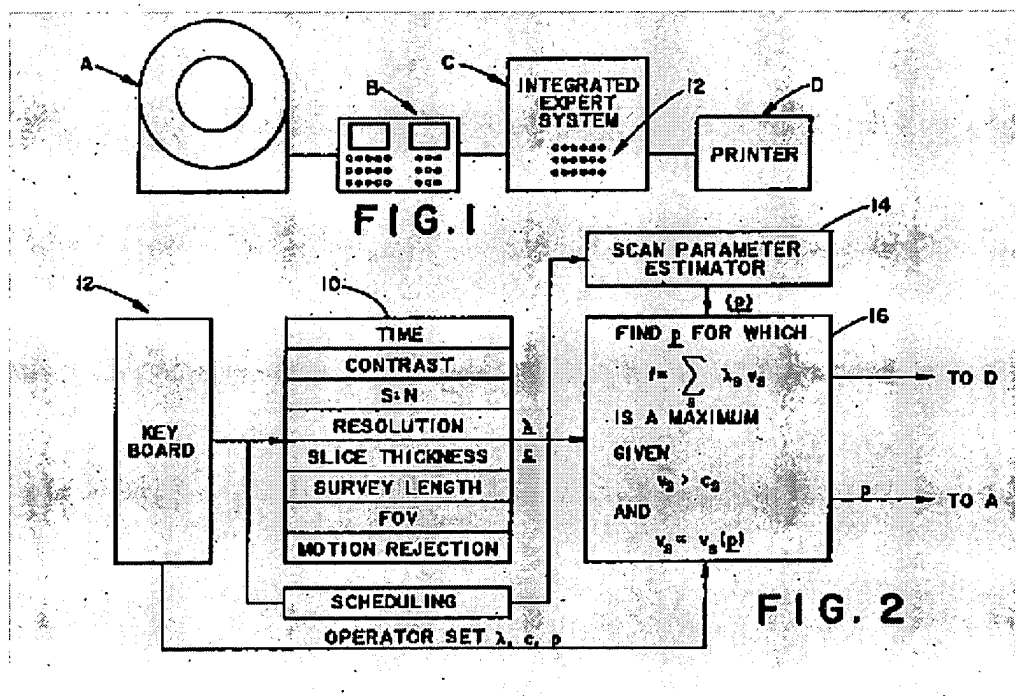
The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims 1-6 and 8-12 are rejected under 35 U.S.C. 102(b) as being anticipated by Gangarosa et al. (US 4,835,690).

Gangarosa et al. (hereinafter Gangarosa) discloses a method and system of selecting scan parameters prior to commencement of each scan to optimize the utility of a generated image. Figures 1 and 2 of Gangarosa below diagram



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a magnetic resonance scanner A (a field magnetic system), an image reconstruction means B (operating mechanism and a display for entering information) to implement or operate the selected scan parameters either automatically or connected to a display to be entered manually by the operator, and an integrated expert system C (a central control system). The integrated expert control C, further shown in Figure 2 of Gangarosa above, comprises at least of a database and algorithms for implementing the optimized scan parameters, column 4 line 48 through column 5 line 14. The disclosed scan parameters of the reference are the setting parameters of the applicant. The scan parameters include scan sequence, repeat time, number of views, number of acquisitions, number of slices, echo time, slice thickness, field of view, and the like, column 4 lines 9-12.

The method of generating optimized magnetic resonance images of a patient disclosed in Gargarosa comprises inputting or providing the system with subject and intended diagnostic application data. The disclosed subject data and intended diagnostic application data are the subject-specific and examination-specific parameters, respectively, of the applicant. Furthermore subject and intended diagnostic application data include age of a patient, the region to be imaged, anticipated size of a lesion, and the like, see Abstract. In addition the operator provides the subject and intended diagnostic application data to the system via keyboard 12. After the subject and intended diagnostic application data are provided to the system the integrated expert system C operates to determine the optimized scan parameters for generating the image, column 5

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and 6. In one disclosed embodiment of Gargarosa the scan parameters (setting parameters of the applicant) are allocated or determined by a look-up table (via table linkage as claimed in 2), column 5 lines 37-40. In another disclosed embodiment of Gargarosa the scan parameters (setting parameters of the applicant) are allocated or determined by a mathematical optimization routine that is interpreted as a neural network of the applicant.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claim 7 is rejected under 35 U.S.C. 103(a) as being unpatentable over Gargarosa et al. (US 4,835,690).

Gargarosa discloses the claimed invention except for the step automatically determining the at least one said specific parameters by said magnetic resonance apparatus. It would have been obvious to one having ordinary skill in the art at the time the invention was made to automate the input of the at least one specific parameters, since it has been held that broadly providing a mechanical or automatic means or step to replace manual activity

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which has accomplished the same result involves only routine skill in the art. *In re Venner*, 120 USPQ 192.

Conclusion

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

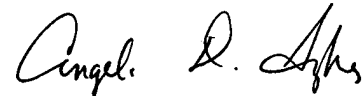
1. Maier (US 4,806,866) discloses determining optimal RF excitation frequency via data to prescan such as location of the center of the region of interest, column 6 lines 18-45.
2. Kanayama et al. (US 5,519,320) discloses automatically generating a pulse sequence from a basic pulse sequence and a parameter block storing the imaging parameters affected by the imaging conditions specified interactively. The pulse sequence is then automatically adjusted to an optimum setting, entire document.
3. Saranathan et al. (US 6,111,411) discloses a method of calibrating the RF transmit power on an NMR system such that the optimal RF excitation field is produced in a region of interest. The optimal RF excitation field is determined in part by the scan parameters such as location and size of the region and the patient sex and weight, column 7 lines 7-21.
4. Heid (US 6,636,038 B1) discloses a method and apparatus for controlling a pulse sequence in a magnetic resonance system, entire document.

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Any inquiry concerning this communication or earlier communications from the examiner should be directed to Runa S. Qaderi whose telephone number is (703) 605-4285. The examiner can normally be reached on M-F 9:00-5:30.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Angela D. Sykes can be reached on (703) 308-5181. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



RSQ

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